

WHAT IS CLAIMED IS:

1. A method for encoding massive jumbograms for transmission of packets and transmitting them in a WAN (wide area network), comprising:

segmenting a jumbogram to be transmitted through the WAN into
5 messages each having a predetermined length; and

sequentially encoding each segmented message, adding a parity bit to the message to be formed into a codeword, and transmitting the codeword through the WAN.

2. The method of claim 1, further comprising:

10 determining whether the last message from among the segmented messages is less than a predetermined length; and

adding at least one padding bit to the corresponding last message to make the last message have a predetermined length when the last message is less than the predetermined length according to a determination
15 result.

3. The method of claim 2, wherein it is determined by using payload length information of the corresponding packet whether the segmented last message is less than the predetermined length.

4. The method of claim 1, further comprising converting the payload
20 length information included in the segmented packet into length information after being converted into a codeword.

5. In a method for receiving encoded massive jumbograms through a WAN (wide area network), a method for receiving massive packets in the

WAN, comprising:

receiving an encoded codeword through the WAN;

determining whether an error has occurred in the received codeword, correcting the error when it is found, and removing a parity bit included in the error-corrected codeword to recover the codeword to an original message; and

decoding the recovered message and recovering the decoded message to a massive jumbogram.

6. The method of claim 5, wherein the determination of error occurrence and the error correction method employ a FEC (forward error correction) method.

7. The method of claim 5, wherein receiving the last codeword further comprises:

determining whether an error has occurred in the received last codeword, correcting the error when it is found, and removing the parity bit to recover the codeword to a message;

determining whether the corresponding last message has at least one padding bit, and removing the at least one padding bit when it is found.

8. The method of claim 7, wherein it is determined using payload length information of the corresponding packet whether the last message has at least one padding bit.

9. In a method for transmitting and receiving a massive jumbogram through a WAN (wide area network), a method for transmitting and receiving a massive packet in the WAN, comprising:

(a) segmenting a packet to be transmitted through the WAN into messages having a predetermined length;

(b) sequentially encoding the respective segmented messages, adding a parity bit to each of them, making the parity bit added message into a codeword, and transmitting the codeword; and

(c) receiving the transmitted codeword to determine whether an error has occurred in it, correcting the error when it is found, and removing a parity bit from the codeword to recover the codeword to an original message.

10. A massive packet transmitter in a WAN (wide area network) comprising:

an encoder for segmenting packets for transmission through the WAN into messages having a predetermined length, encoding the respective segmented messages, adding a parity bit to each encoded message to make it into a codeword, and transmitting the codeword; and

a decoder for receiving the codeword from the encoder through the WAN, correcting an error of the corresponding codeword, and removing a parity bit included in the corresponding codeword to recover the codeword to the original message.

11. The transmitter of claim 10, wherein the encoder adds at least one padding bit to the last message of the segmented packet to make the last message have a predetermined length when the last message is less than the predetermined length.

12. The transmitter of claim 10, wherein the decoder recovers the last codeword from among the codewords received through the WAN,

determines whether at least one padding bit is provided, and removes the at least one padding bit when they are found.